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ABSTRACT

The early 1970's was a period of rapid decline for all fertility indicators in the United States. This paper explores some of the reasons for this decline. Data from a National longitudinal survey of young women are used to examine changes in expectations for lifetime births from 1971 to 1973. These young women decreased their birth expectations substantially over this two-year period from an average of 2.7 to 2.4 births per woman. The relationship of changes in birth expectations to social and demographic characteristics of the woman were explored. The analysis of these longitudinal data showed that expected family size fell dramatically for all women regardless of age, marital status, educational levels, race, age at marriage, current family size, or labor force status. Attitudes toward women's role and family financial status as measured in this research had no significantly systematic impact on young women's family size expectations. Concern for population growth did show a substantial effect on reducing expected family size. The evidence in this paper suggests that a strong consensus has developed that families in the United States should be limited to two children. (Author)

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WORKER, HOUSEWIFE, MOTHER: ROLE DECISIONS
OF YOUNG WOMEN
(A Longitudinal Study of Birth Expectations)

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WORKER, HOUSEWIFE, MOTHER: ROLE DECISIONS

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The purpose of this paper is to explore some of the reasons for the decline in fertility in the United States during the period 1970 to 1973. Demographic factors clearly cannot explain the dramatic decline in births during this period. For example, there were more women who were married and of childbearing age than at any time in the history of the United States. These were the children of women who married in the late 1940's and completed their families with between 3 and 4 children. If the generation born during the "babyboom" had given birth at the same rate as had their parents, the population would have increased by as much as 6,000,000 births a year between 1970 and 1973 instead of the 3.7 million births that occurred in 1971 or 3.1 million in 1973. Obviously, then, these young women have decided to delay marriage, and if married, to either delay having children or to finish childbearing with smaller families than their parents.

Some survey evidence suggests that young married women are not just delaying the start of their families; they intend to have fewer children altogether. For example, the decrease in actual births has been accompanied by a dramatic decrease in number of children considered ideal for an American family (Blake, 1974).¹ National surveys of

¹However, see Sklar and Berkov (1975) for the view that the recent decline in actual births is over because many women who did delay the birth of a child are now bearing their families.

number of children actually expected by married women have also shown a decline from 3.1 children expected per woman in 1967 to about 2.8 children expected per woman in 1971 (see table 2.1 below); and the

TABLE 2.1 LIFETIME BIRTHS EXPECTED BY WIVES
18 TO 39 YEARS OLD
(Children per 1,000 women)

Year	18 to 39	18 to 24	25 to 29
1974.....	2,550	2,165	2,335
1973.....	2,638	2,261	2,386
1972.....	2,678	2,255	2,482
1971.....	2,779	2,375	2,619
1969.....	3,118	2,852	3,037

Source: Current Population Survey, Bureau of the Census.

average number of births expected declined further to 2.6 by 1974. Expected family size for young married women (18 to 24 years old) declined to nearly replacement level (2.1 children per woman) in 1974 (U.S. Bureau of the Census, 1974).

Several explanations for the recent decline in number of births and in expected family size can be suggested. One is the long term change in the roles of women from exclusive emphasis on childbearing and raising to merging of time spent at working for pay and raising children. The emphasis placed by women on family-related roles, especially before World War II, shifted to include a broader range of acceptable behavior during the 1960's. During the 1950's the role of raising children was separated from the time at work: women were more likely to devote

themselves to raising children until grown and then, perhaps, to enter the labor force. Technological advances, which made housework both less time-consuming (and perhaps also less rewarding, e.g., see Hoffman and Wyatt, 1960), probably contributed to a broader range of possible behavior. (Although, see Oppenheimer, 1970, for a different view). During the 1960's the role of mother and worker are more often combined--women more frequently chose to work and to bear smaller families than earlier. In 1973, for example, 53 percent of married women 20 to 24 years old living with their husbands were working for pay (U.S. Department of Labor, 1974) compared with only 30 percent in 1960, and the proportion of mothers of children under 3 who worked increased from 15 percent in 1960 to 31 percent in 1974 (U.S. Department of Labor, 1961: A-13; 1975: 62).

There is also evidence that some women curtailed childbearing because bearing children interferes with their employment. Women who are active in the labor force have fewer children than those less active. For example, women who work full time have fewer children than women who work part time (Sweet, 1968); and women who work most of their lives have fewer births than women who work little or not at all (Kupinsky, 1971).

The lower fertility of working women may occur because young women receive greater rewards from working than having children, and they have less time to spend with their families. Thus, the emphasis on working as a means for self-fulfillment, as recently spoken by leaders

of the women's liberation movement (Friedan, 1963; Blake, 1972) and the ensuing conflicts in time and identity caused by having both family and job responsibilities, could have lead to a reduction in the number of births young women expect to have.

Economic necessity may also lead many women to reduce family size. Even though young families were earning higher incomes in 1973 than were young families 20 years earlier, a larger proportion of young couples may feel that they are not able to adequately support a large family and maintain an acceptable standard of living, nor will they be able to do so in the future. Thus, they are more likely to require two incomes per family and to plan smaller families. The theory of the relationship of economic status and family size has been most thoroughly explored and developed by Richard Easterlin (1972) who has argued that although young persons may be better off in 1970 than were young people in 1940, the desired standard of living of young families depend largely on the comparative earnings of young adults and their parents. If the earnings of young persons relative to the earnings of their parents' generation has declined since the 1950's, then their expectations of the future family growth may also reflect the ability to afford fewer children. The Easterlin hypothesis will not be directly tested in this paper; but some implications of it can be formulated and discussed. When the large number of young women born from 1947 to 1954

began to enter the labor force, they were relatively disadvantaged in the competition for jobs because of the large cohort size. This disadvantageous and uncertain economic situation faced by these cohorts may have resulted in cautious childbearing plans.

Concern with over-population and ecology may also reduce family size. Judith Blake has demonstrated that attitudes toward ideal family size have changed dramatically in recent years parallel with the publicity of shortages of necessary items (such as food) in many countries and over-population. For example, Kruegal (1975) and Westoff (1975) have both shown that women who feel that population growth should be limited plan smaller families than those who do not share population growth concerns. Thus, the recent decline in births may result because young couples are adjusting their expectations of the number of children they should have on the basis of their attitudes toward population growth.

Data Analysis

The data used to address the problem of short-run changes in birth expectations are derived from the National Longitudinal Study (NLS) of labor market experiences of young women who were born between 1944 and 1954.² This nationally representative longitudinal

²The collection of data for this survey is funded by the Manpower Administration, U.S. Department of Labor, and the data were collected by the Bureau of the Census. The questionnaire content on work and education was designed by the Center for Human Resource Research, Ohio State University.

survey of 5,000 women began in 1968, and the women were reinterviewed annually from 1968 to 1973. By 1973, 91 percent of the original sample remained intact.

In January 1971 and 1973 the NLS young women were asked the number of children they have ever had, the number of additional births expected, the expected timing of future births, and the number of children they consider ideal for a family. These women were also asked several questions on their attitude toward working wives, their age at marriage, plans for working at age 35, and perception of changes in financial status, as well as standard social and economic characteristics, educational attainment, schooling, income, family background, and labor force experiences as part of the continuing longitudinal survey of work history.

The pattern of change in birth expectations will be briefly reviewed to provide the background for exploring the impact of concern with population growth, economic factors and attitudes towards the role of women on their expected family size. These data represent the first two-year longitudinal data on fertility expectations which are nationally representative of all women, including married, single, divorced, and separated.³

³Several fertility studies have followed a parity sample of women over a number of years. For example, the Princeton Studies selected white women, married and living with their husbands in certain metropolitan areas who had recently given birth to their second child, and the 1962 Detroit Family Growth Survey selected women who had recently married or who had just had a first, second, or fourth birth. The June 1971-1974 Current Population Surveys of birth expectations are limited to married women.

Short-run changes in birth expectations of individual women can be related to two kinds of factors: First, changes can be related to the demographic characteristics such as race, age, education, and length of marriage of the respondents which are known to influence the level of expected family size at any point in time; and secondly, to changes in the woman's social or economic situation which may result in revision of her original childbearing plans.

This study will show new data for both kinds of characteristics. First, the relationship of expected family size to known characteristics will be illustrated, and then, changes which occurred between the first and second interviews will be examined for their importance in exploring shifts in level of expected family size.

Table 2 displays data on expected family size as reported in 1971 and 1973 for all women 17 to 27 years old (1971), married and single. Expected family size fell dramatically for all women regardless of age, marital status, educational levels, race, age at marriage, current family size, or labor force status. However, the declines were greatest for women under 21 years old, those with less than 8 years of schooling, white women, women who never married, women who believed in 1968 that a woman's place was in the home, and women who were in school or working rather than keeping house for the two years. Average family size decreased for those women who were 17 to 27 years old in 1971 from

Table 2.2. Lifetime Births Expected In 1971 And 1973 Per
Thousand Women 17 To 27 Years Old In 1971¹

Characteristic of women in 1971	Lifetime births expected 1971	Lifetime births expected 1973	Difference (number) 1973 minus 1971	Difference (percent) 1973/1971	Number of women (thousands)
Age in 1971					
Total.....	2,692	2,385	-306	88.6	14,701
17-19 years old.....	2,747	2,371	-376	86.3	4,556
20-21 years old.....	2,649	2,294	-355	86.6	2,712
22-24 years old.....	2,622	2,331	-289	88.9	4,010
25-27 years old.....	2,734	2,541	-192	92.9	3,421
Race					
White.....	2,680	2,354	-325	87.8	12,893
Black.....	2,772	2,596	-175	93.7	1,700
Education in 1971					
0-8 years.....	3,285	2,706	-579	82.4	560
9-11 years.....	2,882	2,620	-261	90.9	3,431
12 years.....	2,648	2,374	-273	89.7	6,772
13-15 years.....	2,608	2,196	-412	84.2	2,695
16 years.....	2,386	2,084	-300	87.3	1,007
17 or more years.....	2,036	1,998	-36	98.1	235
Marital status in 1971					
Never married.....	2,709	2,298	-409	84.8	6,391
Married.....	2,668	2,456	-211	92.1	7,492
Separated, widowed, divorced.....	2,780	2,421	-359	87.1	819
Attitudes toward women's role, 1968					
Traditional.....	2,713	2,288	-424	84.3	3,251
Moderate - traditional.	2,764	2,422	-341	87.6	2,238
Moderate - liberal.....	2,716	2,449	-266	90.2	6,793
Liberal.....	2,535	2,311	-223	91.2	2,360
School enrollment 1971					
Enrolled in school.....	2,676	2,273	-402	84.9	4,036
Not enrolled.....	2,698	2,428	-269	90.0	10,665

¹ The data in this table were taken from the National Longitudinal Survey of the Labor Market Experiences of Young Women 1968-1973.

an average of 2.7 expected births per woman to 2.4 births;⁴ and the size of a family they said was "ideal" for the American family declined from 2.8 to 2.5 births. Women over 25 years old, who were the most likely to have been married for several years and to have had children by 1973, expected somewhat larger families than younger women.

Marital Length and Stability

Attitudes toward completed family size are structured by the marital and birth experience of women; thus women who marry young and begin childbearing early have more children than late starters. An explanation of events which affect changes in birth expectations, therefore, must be independent of these known structural characteristics. As one would expect, the more experience a woman had with marriage, childbearing, and rearing children by 1971, the more stable was her expected family size over the two-year period. This is due in part to the fact that women who had already borne all expected children by 1971 could increase, but not decrease, their expectations; whereas, young unmarried women who had no children could vary their plans more since their answers were entirely hypothetical.

As table 2 shows, the older the woman in 1971, the less she decreased her expected family size on the average by 1973. The NLS

⁴This level is somewhat higher than shown in the Current Population Survey, perhaps because of slight differences in questionnaire wording and placement of the item in the questionnaire. See Current Population Reports, Series P-20, No. 265 for comparisons with married women.

respondents were in the peak period for childbearing in 1973 since they were 19 to 29 years old. The older women were more likely to have already finished childbearing by that time and so could less often decrease their anticipated family size. Women who had not married by 1971, and thus who tended to be younger than their married counterparts, showed a larger drop in the number of children they expected to bear than those who were currently married. The one instance in which experience with marriage seems to decrease short-run stability is when marital experience is unsuccessful. Separated or divorced women decreased their anticipated family size almost as much as did never married women.

As shown in table 3 the longer women had been married the less they decreased their expected family size. although in no category did average expected family size increase. Women who had been married eight years or more by 1971 anticipated the same number of total births, about 3 per woman, in 1973 as in 1971. Those who had recently married in 1971 reported in 1973 they expected only 87 percent of births anticipated 2 years earlier (2,300 versus 2,650 births per thousand women). Young brides decreased their anticipated family size much less over the two-year period than did women who had married at somewhat older ages. This resulted in a widening of the gap in expected family size between women who married at the youngest and oldest ages considered here. Women who marry at young ages tend to be less successful family planners than those who delay marriage and this

Table 2.3. Lifetime Births Expected In 1971 And 1973 Per Thousand Women Married And Living With Their Husbands In 1971 By Age At Marriage And Number Of Years Married

Characteristics of women in 1971	Lifetime births expected 1971	Lifetime births expected 1973	Difference (number) 1973 minus 1971	Difference (percent) 1973/1971	Number of women (thousands)
Age at marriage					
Less than sixteen years old.....	2,822	2,609	-212	92.5	427
17-18 years old.....	2,706	2,581	-124	95.4	2,192
19-20 years old.....	2,686	2,425	-259	90.3	2,349
21-22 years old.....	2,542	2,270	-271	89.3	1,560
23-25 years old.....	2,482	2,172	-310	87.5	613
Number of years married (1971)					
1 year or less.....	2,650	2,300	-349	86.8	1,002
2-3 years.....	2,523	2,246	-277	89.0	2,217
4-5 years.....	2,576	2,378	-198	92.3	1,413
6-7 years.....	2,765	2,582	-182	93.4	1,863
8 years or more.....	2,957	2,955	-1	99.9	997
Number of children borne (1971)					
None.....	2,320	2,027	-292	87.4	2,498
One.....	2,433	2,211	-221	90.9	2,214
Two.....	2,707	2,622	-84	96.9	1,844
Three.....	3,676	3,437	-238	93.5	671
Four.....	4,684	4,481	-202	95.7	174
Five or more.....	5,976	5,811	-164	97.2	88

often results in larger completed families for young brides (Westoff, Potter, and Sagi, 1963: 201). Also, early marriage is frequently precipitated by a premarital pregnancy. For example, a study of teenage fertility and family formation by Kantner and Zelnich found that 31 percent of all married teen-agers had been in their first pregnancy at the time of marriage.⁵ The NLS data show that young brides were more likely than those who married at older ages to have completed much of their childbearing and so were less able to reduce their birth expectations.

There was a greater proportional decrease in expected family size from 1971 to 1973 for women with few children than for those with several children in 1971, except for women who had borne exactly two children by that year, as seen in table 3. This pattern indicates that there may have been a narrowing of the range of acceptable family size during the early 1970's. In the two preceding decades, the size of desirable and acceptable families ranged from two to four children; several surveys showed that about the same proportion of respondents preferred two, three, or four children (Freedman, Whelpton, and Campbell, 1959; Westoff, Michler, and Kelly, 1957; Freedman, Coombs, and Bumpass, 1965). Evidence that the range of acceptable family size has narrowed was shown in a 1972 Gallup Poll commissioned by Blake. More than half (57 percent) of the young adult respondents in this survey considered

⁵Unpublished data obtained in personal communication with Melvin Zelnick.

two children ideal and three-quarters of the responses were in the range two to three.

In 1973 young women in the NLS survey were even less varied in their family size ideals; 62 percent preferred two and 83 percent preferred either two or three children (see table 4). An aversion to childlessness still is evidenced (only 6 percent plan to have no children) but only 14 percent of the respondents gave a family of four or more children as ideal indicating an almost equal aversion to larger families. The narrowing of the range of acceptable family size may have made women with at least three children subject to social pressure to avoid another birth. Mothers of moderate families may have become less willing from 1971 to 1973 to change their plans and move to a large family.

The data shown in tables 4 and 5 indicate the extent of agreement in number of children expected and considered ideal by women in 1971 and 1973. The correlation coefficient for number of children expected in 1971 and 1973 is .53 and the same coefficient for ideal family size is .50. About 57 percent of women reported exactly the same family size expected in 1971 as two years later. Thus, the general trend toward fewer children expected was accompanied by a considerable movement upward and downward.

Table 2.4. Number Of Children Considered Ideal For A Family
In 1971 And 1973 By Marital Status In 1971

Number of children considered ideal in 1971	Total	1973				
		None	1	2	3	4+
All women						
Total.....	100.0	1.1	2.4	61.9	20.9	13.7
0.....	100.0	9.4	16.5	58.8	10.6	3.5
1.....	100.0	5.9	17.9	62.6	12.1	1.8
2.....	100.0	1.1	2.7	80.9	11.6	3.8
3.....	100.0	0.2	1.3	51.6	37.9	8.9
4+.....	100.0	1.0	1.6	30.5	22.5	44.3
Married						
Total.....	100.0	0.4	2.4	65.6	19.7	11.9
0.....	100.0	B	B	B	B	B
1.....	100.0	-	17.4	65.2	18.1	-
2.....	100.0	0.4	2.7	82.8	10.8	3.2
3.....	100.0	0.1	1.5	51.1	37.2	10.1
4+.....	100.0	0.8	0.6	28.7	22.5	47.4
Single						
Total.....	100.0	1.7	2.6	57.9	22.0	15.8
0.....	100.0	10.7	13.3	58.7	12.0	4.0
1.....	100.0	13.1	18.9	59.8	5.7	4.1
2.....	100.0	1.7	2.7	78.7	12.4	4.5
3.....	100.0	0.4	1.2	51.1	39.9	7.4
4+.....	100.0	1.3	2.5	31.4	21.8	43.1

- Represents zero.

B Base too small to allow reliable estimates of percentages.

Education and Race

Although marital status and parity directly affect changes in birth expectations, other social characteristics are less clearly related to these changes. For example, in 1973 white women expected only 88 percent of the births they reported expecting in 1971. The comparable figure for black women was 94 percent. Since black women expected more births per woman in the earlier year, the gap between the races in expected births more than doubled in the two-year period. Black women had already borne nearly twice as many children, on the average, by 1971 as had white women. Thus, black women were more experienced with childbearing and therefore more stable in their expectations. In a later section of this paper, the effect of race on expected lifetime births will be examined independent of other relevant variables such as age and education.

In both years the number of children expected is lowest for women with the highest educational attainment. Education (years of schooling completed) is not related in a systematic way to change in expected family size over the two-year period from 1971 to 1973. The largest decline in expected family size appears for women who in 1971 had completed eight years of schooling or less and women with some college education showed the next largest absolute and proportional drop in anticipated births. Women who had completed seventeen or more years of schooling were the most stable in their expectations, probably because

Table 2.5. Number of Children Expected In 1971 And 1973
By Marital Status In 1971

Number of children expected in 1971 by marital status in 1971	Total	Number of children expected in 1973				
		No children	1	2	3	4 or more
Total.....	100.0	6.0	8.8	48.6	22.8	13.8
None.....	100.0	49.8	10.9	29.3	6.0	3.8
1.....	100.0	11.8	44.5	35.8	6.0	1.8
2.....	100.0	4.4	8.7	69.1	13.6	4.3
3.....	100.0	2.0	5.5	39.7	42.9	9.9
4 or more.....	100.0	3.2	3.7	23.5	24.8	44.9
Never married, 1971						
Total.....	100.0	9.0	8.0	49.9	19.7	13.3
None.....	100.0	41.0	11.3	37.6	5.8	4.1
1.....	100.0	16.7	34.8	37.8	6.0	4.3
2.....	100.0	6.6	7.9	67.7	12.8	4.9
3.....	100.0	3.6	5.5	44.8	36.8	9.2
4 or more.....	100.0	5.6	4.8	28.0	22.6	39.0
Married, spouse present						
Total.....	100.0	3.5	8.9	48.5	25.2	13.8
None.....	100.0	71.6	9.9	10.5	4.9	2.5
1.....	100.0	7.8	51.9	33.3	6.7	0.3
2.....	100.0	2.7	9.0	70.3	14.5	3.5
3.....	100.0	1.0	5.1	36.2	47.3	10.3
4 or more.....	100.0	0.4	1.9	20.8	27.0	50.0

they expected few children in the earlier year--around 2. Women at each educational level seemed to have shifted toward expecting a family of 2 children in the two-year period.

Sex Roles

Women who hold traditional views of appropriate roles for women, that is, those who believe the old saw, "A woman's place is in the home," who feels a woman's life should center around and be devoted to her family while the man fills the role of provider, would be expected to have, and actually do have, more children than those who have less traditional views of sex roles (Retert and Bumpass, 1974). Clearly women who feel that wife and mother are their most important and most rewarding roles should want to spend more of their lives actively playing these roles, perhaps extending the time in which they are involved in rearing children by having extra children (Hoffman and Wyatt, 1960). If the attitude toward the appropriate role of women is changing toward an emphasis on nonfamily behaviour, will women decide to have smaller families? Mason, et. al. (1974) have found that women's sex role attitudes have changed since 1970, reflecting especially an increase in support for egalitarian sex-role arrangements and for working women's rights. This liberalization of sex role beliefs could be expected to affect the number of births young women expect to have in their lifetimes for those women who are still able to alter their completed family size

The NLS respondents were asked a series of three questions designed to measure their sex role attitudes. They were presented with

the following scenario:

"Now I'd like you to think about a family where there is a mother, a father who works full time, and several children under school age. A trusted relative who can care for the children lives nearby. In this family situation, how do you feel about the mother taking a full-time job outside the home?"

and then asked whether this mother should work:

- a. If it is absolutely necessary to make ends meet.
- b. If she wants to work and her husband agrees.
- c. If she prefers to work, but her husband doesn't particularly like it.

The response categories given to the respondent to chose from varied from definitely not all right to definitely all right.

The responses to these questions were summed to form a scale of sex role attitudes which ranged from 3 (very liberal) to 15 (very traditional). The questions were first asked in 1968, 3 years before the first birth expectations' questions and when the cohort was 1- to 24 years old. Women who in 1968 gave liberal responses to these items, reported expectations for the smallest families in 1971. There was no difference in birth expectations between women who gave traditional or moderate responses.

Change in expected lifetime births was strikingly regular in its relationship to sex role attitudes in 1968. The more traditional a

woman's attitudes toward sex roles were in 1968 the more she decreased her expected family size from 1971 to 1973, both absolutely and proportionally. In fact, those who were most traditional in 1968 expected the fewest births by 1973. There are several explanations for this about-face. Women who see a conflict between time spent childrearing and working might choose to reduce time spent on childrearing rather than working. Perhaps women who think a mother should not work when her children are young, and yet want to work themselves, resolve this conflict by having fewer (or no) children thus maintaining a traditional separation of roles. The sharp decrease in family size expected by women with traditional sex roles beliefs could be accounted for by this explanation if many of these women decided between 1971 and 1973 that they wanted to work rather than have children. In fact, only 12 percent of all women changed their status from housewife or student to worker in that period.

Another possibility is that during the early 1970's a period of "liberation" from stereotyped gender roles occurred for both men and women. The young women NLS respondents may have become substantially more liberal between 1968 and 1972 in their beliefs about appropriate sex roles.⁶ Those who were very traditional in the earlier year may

⁶The mean of the sex role scale for all respondents dropped from 8.5 in 1968 to 7.3 in 1972. Thus, they became more liberal overall. The scale ranges from 3 = very liberal to 15 = very traditional.

have been most likely to change their views, given the forces operating in the society during the 1970's. Thus, they may have changed their minds completely about having large families.

In 1968, when sex role attitudes were first measured, the NLS respondents were 14 to 24 years old. If the youngest women were the most traditional, because of lack of experience with work or childbearing, or because of lack of exposure to competing ideologies, then by 1972 when they were at least 18 years old and one-third were attending college, they could have drastically revised their role perception and family size ideologies. This change is also consistent with the fact that the youngest women expected larger families than older women; and young women decreased their expected family sizes more than any other group by 1975 (see table 2). Thus, it is perhaps no surprise to learn that birth expectations dropped most for women who were (in 1971) young and traditional in outlook, who entered college and became aware of new role ideals, then changed their perception of self and of expected family size to about 2 children.

Beliefs about appropriate roles for men and women are closely tied to relative preferences for large or small families. It has already been shown that women who voice traditional beliefs about sex roles tend to have given birth to more children than do women with more liberal views (Retert and Bumpass, 1974). A general movement toward more equalitarian roles for men and women as has occurred for some

of these young women, would be expected to lead to a reduction in average family size if only because the nontraditional role for women includes having a career; as more women develop careers, more will have less time for the housewife and mother roles. Also, satisfactions which are derived from a job may reduce the need for gratification from continued mothering and ultimately reduce the number of children a woman needs to bear to feel that her life has been productive (Hoffman and Nye, 1974; Hoffman and Wyatt, 1960).

The forces which make the worker role more central in many women's lives are also probably economic. For example, a couple may feel that the lifestyle which they can maintain on one salary is unacceptably low. If both members of a couple must work to maintain what they consider to be an adequate standard of living, fewer resources, either time or money, may be available for raising children. These decisions and attitudes about sex roles and economic conditions are probably too interwoven to be completely separated into distinguishable behavioral patterns by empirical measurements in a sample survey.

However, the data shown in table 7 indicate the extent to which birth expectations were changed between 1971 and 1973 as women changed their activities. That table shows the number of women who shifted between working, attending school, and keeping house between these two years and the changes in expectations between the two dates. This table illustrates again that exposure to schooling especially reduces

Table 2.6. Lifetime Births Expected In 1971 And 1973 Per Thousand Women 17 To 27 Years Old In 1971 By Changes In Marital And Financial Status

Characteristics of women in 1971 and 1973	Lifetime births expected 1971	Lifetime births expected 1973	Difference (number) 1973 minus 1971	Difference (percent) 1973/1971	Number of women (thousands)
Change in marital status 1971-1973					
Never married 1971-1973.....	2,730	2,272	-457	83.2	4,243
Married, spouse present 1971-1973...	2,689	2,469	-219	91.8	6,812
Never married 1971, married 1973.....	2,677	2,359	-318	88.1	2,119
Married 1971, Other 1973.....	2,500	2,298	-200	91.9	556
Other 1971, Other 1973.....	2,689	2,400	-288	89.3	972
Perceived financial status					
Up 1972, up 1973.....	2,657	2,324	-332	87.5	4,001
No change 1972, up 1973.....	2,627	2,371	-254	90.3	2,269
Up 1972, no change 1973.....	2,566	2,406	-158	93.8	1,991
Down 1972, up 1973...	2,663	2,283	-379	85.7	936
Up 1972, down 1973...	2,685	2,338	-346	87.1	734
No change 1972, 1973.	2,887	2,496	-390	86.5	2,970
Down 1972, no change 1973.....	2,720	2,459	-260	90.4	564
No change 1972, down 1973.....	2,730	2,449	-280	89.7	591
Down 1972, down 1973.	2,746	2,321	-424	84.5	436

the level of expected family size for young women. Thus, decreases in expected family size were greatest for women who had spent some portion of 1971 or 1973 in school.⁷ Decreases were lowest for women who were keeping house during one or in both of the survey years. Women who worked during both years made up the largest proportion of all women (41 percent) and had expected only 2.5 children per woman in 1971 compared with 2.7 or more for all other groups (except those who were keeping house after enrollment in school). Working women dropped their anticipated family size by a large margin, about 355 children per 1,000 women, but not by as much as those who had been in school for at least one of the years. By 1973, working women had, on the average, completed only about 22 percent of their total expected family size. Women who were keeping house in 1971 and 1973 expected to have the largest families, almost 3 children per woman, and in fact, had already completed two-thirds of their expected total family size by 1973. Although the data in this table cannot be conclusive, since there are no statistical controls for the effects of age, marital status, or other characteristics, they do suggest that the experience of working or attending school was definitely instrumental in reducing expected family size between 1971 and 1973.

⁷ Except for the approximately 240,000 young women who changed from attending school in 1971 to keeping house in 1973. Their increased birth expectations, no doubt, reflect a sudden change in marital status and, for about 40 percent, a birth between 1971 and 1973. Their expectations in 1971 may have been unreasonably low.

Table 2.7. Lifetime Births Expected In 1971, Children Borne By 1973
For Young Women 17 To 27 Years Old In 1971 By Change
In Employment Status From 1971 To 1973

(Per thousand women.)

Labor force status 1971 and 1973	Number of women (000's)	Births expected 1971	Children borne 1973	Change in birth expectation 1971-1973
Labor force status 1971-1973				
In school 1971-1973.....	522	2,722	94	-534
School 1971, labor force 1973.....	849	2,700	113	-458
Labor force 1971, school 1973.....	584	2,750	134	-378
Labor force 1971-1973.....	5,564	2,547	546	-355
Keeping house 1971, labor force 1973.....	736	2,737	1,830	-285
Labor force 1971, keeping house 1973.....	2,195	2,726	1,235	-232
Keeping house 1971-1973.....	2,855	2,939	2,019	-224
School 1971, keeping house 1973.....	239	2,490	618	+125

Multi-variate Causal Model

To this point in our discussion we have considered the relationship of one variable at a time with decreases in the number of children expected. Of course, several factors may act together to produce a decrease in birth expectations or, alternatively, one factor may not appear to be related because its effect is conditioned by still other underlying variables. Further analysis of the determinants of decreases in birth expectations over the two-year period of this survey will be made with a multivariate regression model. Use of a model of this type allows us to examine the relationship between reports of expected family size in two years while holding constant the effect of other factors, such as the woman's age or education. Understanding of the recent decline in fertility and birth expectations may have important implications for public policy. It is crucial for this reason to be sure that the relationships we have identified between birth plans and other characteristics are due to those characteristics and not to other factors.

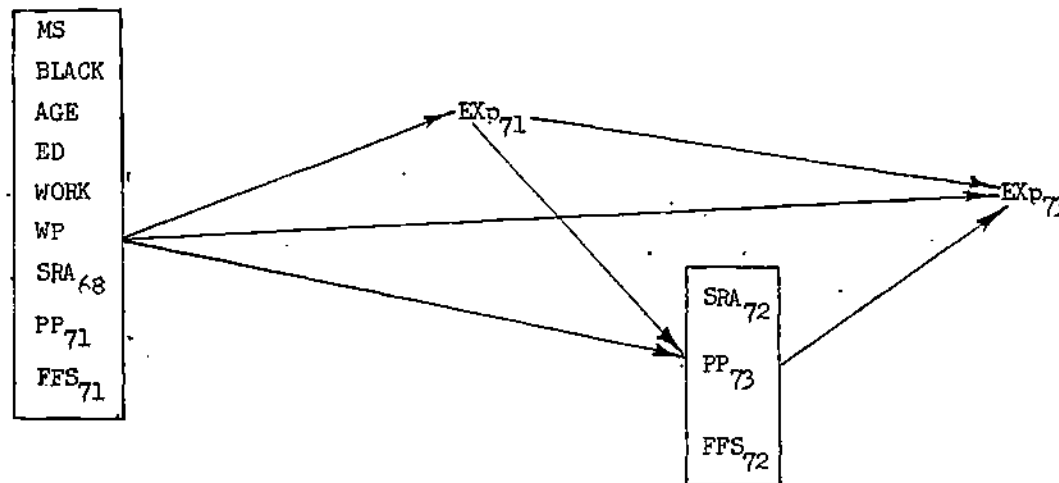
Measurement of the conditions that effect a change over time in a single characteristic cannot be reliably made with traditional mobility measures such as the arithmetic difference between the first and second year. For example, groups with a very high or low response in the earliest year would be the most likely to change the greatest distance; and persons who reported no children expected could change in only one direction. (See Blau and Duncan, 1968: 194-199 and Bohrnstedt, 1972 for a discussion of the problems inherent in mobility measures.)

Thus, purely on the basis of chance a change from 6 to 4 children would be more likely to occur than a change from 4 to 2 children. Although not all of these problems may have been solved satisfactorily, the model shown in figure 1 should avoid some of these measurement problems. The results of this analysis should be viewed as not yet definitive.

The causal model of family size decisions shown in figure 1 implies that the number of children which a woman expected to bear in her lifetime, as reported by her in 1973, was a function of her birth expectations in 1971; her sex role attitudes in 1968 and 1972, her ideal family size in 1971 and 1973, her family financial situation in 1970 and 1972, and a number of background variables. For these variables which were measured in at least two different years, the effect on births expected in 1973 can be determined independent of the effect of the same factor in the earlier year.

Estimation of the model shown in figure 1 gives some indication of the relative impact of three factors of change in American society which may account for the recent decline in births. These are the liberalizing of attitudes toward appropriate sex roles, increasing concern for the problems of population growth and the relatively unfavorable economic situation faced by members of the large cohorts born in the baby boom of the 1950's. Expected family size reported in 1973 will be determined chiefly by the woman's birth expectations

Figure 2.1. A Causal Model Of Lifetime Birth Expectations
Of Young Women As Reported In 1971 And 1973



The blocked variables are shown together for simplicity of presentation only. Each of these variables effects the endogenous variables separately. The variables in the model are:

MS = marital status dummy (1 = married).

Black = dummy for race (1 = black).

Age = age in years.

Ed = education in years.

Work = dummy for current labor force participation (1 = working).

WP = plans for age 35 (1 = plan to work).

SRA = scale of sex role attitudes.

PP = concern for population problems included as an interval scale of ideal family size and alternately, as a dummy variable scored 1 if ideal family size greater than 2.

FFS = family financial status.

Exp = number of lifetime births expected.

two years earlier. Even if family size in 1973 is perfectly correlated with expectations in the earlier year, changes could have occurred in childbearing plans. For example, if every woman reported in 1973 expecting one less child than she foresaw in 1971, then lifetime births expected in 1973 would be simply a linear transformation of expectations two years earlier. But the larger the effects of variables other than birth expectations in 1971 on expectations in 1973 the less family size plans in this later year were determined by their earlier value.

If the impact of liberalization of sex role attitudes, increasing concern for population growth or changing economic circumstances did decrease childbearing plans, these changes should be related to decreases in expected family size. This would be reflected in the coefficients of the model. For example, the measure of sex attitudes used here runs from very liberal (3) to very traditional (15). A positive effect for this scale on the number of children which young women expect to bear in their lifetimes implies that those with more traditional attitudes toward sex roles expect more children than their more liberal sisters. If this relationship does hold then a general liberalization of sex role attitudes for the young women in the sample would result in a lowering of expected family size. This same relationship should hold for concern for problems of population growth (measured by ideal family size). If women who are not concerned about population growth expect larger families than other women, an increase in this concern from 1971 to 1973 should result in a decrease in the size of expected families between 1971 and 1973.

The model shown in figure 1 was estimated for 3,973 respondents, omitting those missing data on any of the variables in the model or who were not interviewed in every year, 1968 to 1973. Of the 5,159 women in the sample, 799 were not interviewed in every year and 387 were eliminated because of missing data. The model is shown in figure 1 with all background variables in a block and with the measures of sex role attitudes, population concern, and economic factors in a block, for presentation purposes. Each factor is included separately in the equations for the endogenous variables. The background variables which were included are: age (in years), marital status (dummy for married), race (dummy for black), education (in years), current labor force participation (dummy for working), plans for work at age 35 (dummy for plan to work). All these variables are measured in the 1971 survey.

Table 8 presents beta (path) coefficients for the independent variables in the equations for expected births 1971 (Exp_{71}) and for expected births, 1973 (Exp_{73}).

Expected family size reported by the young women in 1971 is more strongly related to birth expectations two years later than other characteristics known about the sample such as age, education, age at marriage, etc. (see table 8). However, the partial standardized regression coefficient of .38 indicates there is a considerable amount of change in individual expectations in only a two-year period. Thus, knowing the level of birth expectations in 1971 does not allow one to

Table 2.8. Path Coefficients From The Basic Model
Of Birth Expectations Of Young Women

(Dependent variables are given in column headings.)

Independent variable	Birth expectations 1971	Birth expectations 1973
Marital status.....	.03528*	.04165*
Black (dummy).....	-.05943*	.03210*
Age.....	.03880*	.04134*
Education.....	-.06484*	-.05639*
Work.....	-.05359*	-.05234*
Work plans.....	-.02846*	-.00282
Sex role attitudes (1968).....	.02684*	-.01801
Ideal family size (1971).....	.56689*	-.07431*
Family financial status (1971).	.00350*	-.00810
Birth expectations (1971).....		.37979*
Sex role attitudes (1972).....		.03556*
Ideal family size (1973).....		.41742*
Family financial status (1972).		.01200
	$R^2 = .3297$	$R^2 = .4285$

* Indicates that the absolute value of the coefficient is at least twice its standard error.

completely predict what the woman's family plans will be two years later.

Ideal Family Size and Population Concern

Concern with problems of population growth was not measured directly in this survey. However, the item on ideal family size may be a strong indicator of concern with population growth, especially since this question was preceded by following introductory statement:

Since the attitudes and plans of young women, like yourself, are among the most important factors in estimating future population growth in the United States, I would like to ask you about your views toward family size.

Research by Kruegel on the connection between concern for population problems and stated ideal family size indicates that persons who believe population growth is a serious problem are about two or three times as likely as those who believe it is no problem to give an ideal family size of 2 children. The measure of association (gamma) indicates the

proportion of the variance in ideal family size that can be attributed to concern for population growth. For the survey respondents about the same age as the young women in the NLS (19 to 29 in 1973), the gamma levels were .46 for those 16 to 21 years old and .39 for those 22 to 29 years old. This implies that about 40 percent of the variance in ideal family size reported by individuals in their teens and twenties can be associated with their concern for population growth. Therefore, less than half of the effect of ideal family size in the equations reported in this paper may be interpreted as "population concern." Ideal family size was included in the model as an interval-level variable equal to the number of children which the woman considered ideal for a(n average American) family. However, the results were identical to those obtained by using ideal family size as a dummy variable scored 1 if the woman gave a family size ideal of 2 children or less, zero otherwise.

It could be argued that the question on ideal family size was interpreted by respondents as ideal for them, not for all of American society. However, the introduction to the question and the wording which stress a universalistic framework, should reduce the personal effects. Also, the mean response to the question on ideal family size is somewhat higher in 1971 than the mean number of children expected

(2.82 versus 2.69) suggesting a true difference in what is perceived to be good for everyone and what is good for the person. This same pattern has been found in a number of other studies which asked respondents specifically about the ideal size of "the average American family" (Freedman, Whelpton, and Campbell, 1959: 222). These features are consistent with the interpretation that ideal family size is an indicator of concern with population problems.

The beta coefficient for ideal family size (1973) is about the same magnitude as that for birth expectations in 1971. This implies that family size plans depend as heavily on current family size ideals as on previous birth expectations. If approximately 40 percent of the impact of ideal family size can be attributed to concern for problems of population growth, as we argued, then women who show this concern expect to have significantly fewer children than those who are not concerned with this issue. In 1971 the average number of children that NLS respondents considered ideal for a(n average American) family was 2.73. By 1973 this ideal had fallen to 2.48. The positive relationship between ideal family size and family size plans in 1973 indicates that women who feel a relatively large family is ideal for families in general expect to have more children than other women. Given this positive relationship in both 1971 and 1973 a decrease in the mean ideal family size implies a decrease in the mean number of births expected. This finding is consistent with our reasoning that increasing concern with problems of population growth caused young women to reduce the size of the families they planned to have.

Sex Role Attitudes

The influence of sex role attitudes on expected family size in 1973 is much smaller than that of either expectation for lifetime births as reported in 1971 or ideal family size. However, the positive coefficient implies that women with traditional attitudes towards female roles plan larger families than do those with liberal sex role beliefs although the difference is not sizeable. Thus, the observed increase in the "liberal-ness" of the sex role attitudes of NLS respondents should result in a decline in mean number of lifetime births expected. The small effect of this factor on expected family size seems to indicate that more acceptance of nontraditional roles for women has a relatively modest impact on their family size plans.

Perceived Economic Condition

Economic factors in childbearing decisions are difficult to measure. We have chosen to use a subjective indicator of short-run fluctuations in economic well-being. Respondents were asked in each year "So far as your financial position is concerned, would you say you are better off, about the same, or worse off than you were at this time last year?" The possible answers were: the same, better off, or worse off. While these measures are an indication of the general direction of economic well-being, several factors are unknown. For example, was the change an improvement added to an already very high lifestyle, or to poverty? Did the respondent see the change as temporary and unlikely to recur or merely as an indicator of long range instability in her financial situation? Some of these confounding factors can be reduced by including in the model age, education, race,

marital status, and employment status.

The fact remains that the economic conditions being measured are short-run. If one wanted to test Easterlin's (1973) reasoning about the effect of long term relative economic condition (the relative affluence of family of orientation of the woman and her husband on their completed family size) one would need detailed information which is not easily derived from the National Longitudinal Study. Furthermore, the measure of economic well-being used here may be more indicative of the tendency to delay (or permit) births, rather than a predictor of completed family size. And yet, the measure of feelings of financial well-being appears to be a valid indicator of decisions which may occur when a woman changes her expected family size. If economic conditions are worsening for a family, they may choose to limit the future size of their family.

As shown in table 8, however, the measures of short-run economic well-being have no effect on the number of expected children in either 1971 or 1973. Apparently changes over a two-year period in the respondent's evaluation of her monetary situation did not influence her long-run childbearing decision. This finding and the results shown in table 6 which indicated that nearly all women perceived their economic status either as stable or improving, suggest that the decline in births cannot be directly explained by current economic fluctuations.

One of the reasons for estimating a multivariate model was to insure that the relationships found between the number of children that women expected to have and other variables were not spurious. The partial regression coefficients which give the effect of one factor independent of other variables in the model provide another more thorough test of those statements. It was reported in an earlier section that women who were older, married, and with little education expected larger families in both 1971 and 1973 than did young, single, relatively well-educated women. These findings were confirmed with the multivariate regression analysis. The effect of being black (other factors held constant) on expected family size was negative in 1971 and positive in 1973. That is, black women expected fewer children than white women in 1971 after the effects of education, marital status, age, current labor force participation and other factors were removed. In 1973 after controlling for these relationships black women planned larger families than white women. This reversal was caused by the smaller decrease from 1971 to 1973 in expected family size for black than for white women (see table 2), perhaps because black women at higher socioeconomic status levels have not dropped their expectations as much as comparable white women.

Summary

Cross-sectional surveys of birth expectations of married women have shown a dramatic decline in the total expected family size, especially for young married women 18 to 24 years old, since 1970. Recent

population projections prepared by the Bureau of the Census reflect the declining average size of families in the United States; and current birth rates imply a completed family size of less than two children per family. The longitudinal survey of young women 17 to 27 years old (in 1971) analyzed in this paper shows that birth expectations of young women can be very volatile over a two-year period. The correlation between 1971 and 1973 total expected family size for all women (Pearson product moment correlation coefficient) was .53, not an especially strong association and only 57 percent of women reported the same expected family size in 1973 as 1971. Overall, the average family size considered ideal for the American family and actually expected by these women declined by about 300 children per 1,000 women between 1971 and 1973, and a larger number of women chose to have 2 children rather than 3 or 4.

The analysis of differentials in birth expectations shows that the number of births expected by women in this age cohort had declined regardless of their characteristics such as age, race, educational level, employment status, attitudes toward women working, or marital status. However, the decline in birth expectations was greater for some groups of women: those who were attending school in 1971 or 1973, or those with some actual labor force experience in one of the years of the survey and those who had few children. Women who had spent most of their time in 1971 and 1973 working around the house had the

most stable number of births expected. These women had completed nearly two-thirds of their expected family size by 1973.

The analysis of multi-variate causal models of the effect of changes in role attitudes on changes in birth expectations shows that there may be little influence of attitudes toward women's role in the labor market on level of birth expectations in this two-year period. Indicators of women's role choice (i.e., what they are actually doing) like marital status and current labor force participation show that women who were married expect more children than others, and those who are working expect fewer than non-working women. Young women's beliefs about the ideal size for the average family, which reflect concern with population growth (and probably reflect their relative valuation of mother and worker roles for women) had a substantial impact on the number of children the respondents expect for themselves. Change in this ideal from 1971 to 1973 is consistent with the hypothesis that increasing concern for problems of population growth caused young women to reduce the number of children they planned to have.

This research began with the belief that changes in birth expectations could be explained by changes in attitudes towards the role of women in society, in perceptions of family financial status, or a concern with over-population in the United States. However, the indications are that young women dropped their expected family size regardless of their status on these factors. Although women who were active in

school or the labor force were likely to decrease their expected family size in this two-year period by more than women who were keeping house (and thus not actively pursuing nontraditional women's roles), the evidence in this paper suggests that a strong consensus that families in the United States should be limited to 2 children has developed. This change in family size may itself lead to further changes in roles of women in society.

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